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Resilience in public service partnerships: evidence from the UK Life Chances Fund

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ABSTRACT

This paper explores functional and structural resilience in outcomes-based public service partnerships. Using a theoretical framework informed by socio-ecological and health fields, and data from all thirty-one social impact bonds (SIBs) funded through the UK government's Life Chances Fund, we explore how SIBs adapted service delivery and funding mechanisms in response to Covid-19. Human factors supported service continuity and adaptation, indicating the presence of functional resilience. Evidence of structural resilience was mixed, highlighting the importance of clear governance roles for determining structural changes during a crisis. Implications for an increasingly networked and partnership-based public service sector are discussed.

KEYWORDS Public services; social impact bonds; partnerships; resilience; crisis management

Introduction

This paper explores the extent to which organizational resilience was demonstrated during the 2020 Covid crisis by a type of outcomes-based public service partnership called the social impact bond (SIB). SIBs represent collaborative partnerships between public, private and/or third-sector stakeholders intended to achieve better social outcomes in policy areas poorly served by traditional public services.

The UK pioneered the SIB concept in 2010 and remains a global leader. By the end of 2020, more than 200 impact bonds had been implemented worldwide of which about forty per cent were in the UK (INDIGO 2021). The UK's prominence in this field gives scope for in-depth empirical studies, and the increasing number of similar partnerships worldwide (e.g. development impact bonds and pay-for-success) makes the UK experience internationally relevant. Although originally developed in response to public sector austerity following the 2008 financial crisis, SIBs have not previously been tested by worldwide crisis.

UK SIBs have delivered social services to address recidivism, homelessness, mental health, youth unemployment, and child welfare. SIBs can be thought of as 'social outcomes contracts' rather than conventional bonds (there is no open market in these

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financial instruments). Unlike conventional payment-by-results contracts, a SIB includes not only a public sector commissioner and a service provider but also has investors who provide up-front funding and are repaid if outcomes are achieved. This three-way structure is intended to transfer some of the financial risk of underperformance to the investor (Carter et al. 2018). Notably, in addition to commissioners, providers, and investors, many SIBs also include an intermediary. Intermediaries typically offer technical support and advice to SIB projects, are regularly involved in their performance management, and may also manage the investment side of SIB projects (e.g. the not-for-profit Social Finance has developed SIBs and other forms of social innovation in the UK and abroad (Social Finance 2021)).

Since their inception, SIBs have been the focus of opposing views, exemplified by 'narratives of promise, narratives of caution' (Fraser et al. 2018b). Proponents claim SIBs improve social outcomes amongst clients with complex needs who are poorly served by traditional public services. Benefits include a strong focus on outcomes, rigorous performance- and data-management, cross-sectoral collaboration, early intervention, and long-term flexible funding (Ronicle et al. 2014; Carter et al. 2018). Conversely, critics are concerned about the financialization of social need – how clients are valued only insofar as they can achieve payable outcomes – and that SIBs focus on the symptoms rather than the causes of poverty and inequality (Warner 2013; Tse and Warner 2020; FitzGerald, Fraser, and Kimmitt 2020). SIBs are widely regarded as costly to set up and implement, and evidence of their effectiveness versus other approaches is currently lacking (Carter et al. 2018; FitzGerald et al. 2019; FitzGerald, Fraser, and Kimmitt 2020; Lowe 2020). These are not just academic debates. Suspicion about investor motives and practices can be found among SIB commissioners, managers, and front-line workers even while they recognize the benefits of flexibility that long-term funding provides (George, Rogers, and Roberts 2020).

SIBs nevertheless offer the potential of collaboration, flexibility and adaptability in service delivery alongside the rigour of incentives-based performance regimes (Heinrich and Kabourek 2019). In so doing, SIBs have been 'heralded as a mechanism to drive solutions to some of the most complex and expensive social problems' (Carter 2021, 79 citing Roberts 2013). Given this potential, exploring how SIBs displayed different forms of resilience during the Covid crisis is a unique opportunity to test a supposedly transformational delivery model that combines several public management reform mechanisms: public-private partnerships; performance-based contracting; impact investing in evidence-based interventions; and evaluation and accountability routines focused on outcomes (Heinrich and Kabourek 2019).

In the sections that follow, we first define organizational resilience and explain what drives it, making a theoretical contribution by building on socio-ecological conceptions of resilience. We then provide policy background on the SIBs included in our analysis, underscoring the uniqueness of the empirical case being made. Following, we use literature to frame the mechanisms through which SIBs might display resilience. We then describe the methods used for analysis and discuss what we found. Finally, we offer concluding remarks which speak to implications for post-Covid public service delivery through SIBs and by extension, partnerships. The investigation of such hybrid

organizations, operating at the boundaries of different sectors and policy areas, helps us to confront the 'big challenges' of public management research that have been exposed by the Covid crisis (O'Flynn 2021).

Organizational resilience: definitions and drivers

A growing number of studies focus on the resilience of public institutions across various dimensions (see, for example, a special issue on resilient institutions edited by Arjen Boin and Martin Lodge (Boin and Lodge 2016) and a review by Edwine Barasa and colleagues of a considerable body of literature (Barasa, Mbau, and Gilson 2018)). In the special issue, Andreas Duit conceived of resilience across two dimensions: *what* is the object of resilience and *when* is that object understood to be resilient (2016)? The *what* of resilience speaks to a continuation in function (e.g. uninterrupted delivery of social services or water supply) and structure (e.g. maintenance of internal command structures or community identities and social capital). The *when* of resilience, meanwhile, has three sub-dimensions. The first, precursor resilience, understands resilience as the ability of an organization or community to cope with a sudden shock (Boin and van Eeten 2013). The second, recovery resilience, explores how well organizations and communities recover from a shock or event after it has occurred. The third sub-dimension, adaptive resilience, speaks to an ability to learn from past experiences and improve capacity to withstand crises over time (Duit 2016).

This temporal sequence is related to the concepts of 'bouncing back/ bouncing forward' explored, for example, in the case of local governments by Carmela Barbera and colleagues (Barbera et al. 2017, 2021) but includes a three-stage sequence particularly applicable to the long-term nature of the Covid-19 crisis. We also draw on the conceptual framework '*resilience for whom?*' (Herrera 2017), when we discuss the different attitudes to risk of the institutional stakeholders.

As conceptualized by Duit, the *what* and *when* of resilience can be ordered such that each subsequent definition subsumes those listed prior. This results in a ladder (Figure 1) whereby the most basic definition of resilience is the maintenance of functions (1) and the most comprehensive definition of resilience includes calls for successful crisis management and recovery (1–4) as well as purposeful learning and reforms aimed at improving resilience in the future (5–6). This is akin to what some scholars refer to as a 'transformational' approach to resilience: where an organization can 'learn, adapt and self-organise in the face of any challenges' (Linnenluecke and

What ↓ When→	Precursor	Recovery	Adaptive
Function	1. Maintains function during crisis	3. Recovers and functionally returns to a state of normalcy post-crisis	5. Learns and applies lessons to improve future functional resilience
Structure	2. Maintains structure and integrity during crisis	4. Recovers and structurally returns to a state of normalcy post-crisis	6. Learns and applies lessons to improve future structural resilience

Figure 1. Ladder of resilience (Adapted from Duit 2016).

Griffiths 2010), return to a steady state post-crisis (Boin and van Eeten 2013) and build new capacities to innovate aligned to a changing external environment (Lengnick-Hall, Beck, and Lengnick-Hall 2011).

Irrespective of what kind of resilience is being studied, most resilience research seeks to understand its causes or drivers. To categorize the wide range of possible drivers, we drew on the findings of a systematic review conducted by Edwine Barasa and colleagues of thirty-four empirical studies of organizational resilience (Barasa, Mbau, and Gilson 2018). The review identified nine institutional factors linked to resilience. We allocated these factors into three broad areas: governance, resources, and human factors as a way of classifying and understanding the drivers of and barriers to resilience in our cases.

Governance (which comprises the factors 'governance processes' and 'preparedness and planning' identified by Barasa, Mbau, and Gilson (2018)) was found to be most resilient when decentralized and distributed rather than top-down, and was often characterized by a degree of forward-planning. Though, effective reaction to unexpected events was often more important than attempting to plan for every eventuality (Barasa, Mbau, and Gilson 2018). This is also seen in the context of US wildfire management, for example, where the organizations predicted to be central information-brokers were not those to whom stakeholders turned in practice (Faas et al. 2017). Some types of planning may lead to complacency, as when the US and the UK were ranked first and second respectively for pandemic planning as recently as October 2019 (Cameron, Nuzzo, and Bell 2019), though both countries were subsequently considered to have fallen short in their coronavirus responses (Baum et al. 2021). As Ansell and colleagues recently pointed out, robust and flexible governance in the face of 'turbulent problems' is required for effective public sector responses to Covid (Ansell, Sørensen, and Torfing 2021).

We use resources (Barasa et al.'s 'material resources', 'information management' and 'collateral pathways and redundancy') to imply resources that are not so overstretched as to make adaptation impossible (O'Toole and Meier 2010; McCrea 2020). Sufficient (or surplus) resources allow organizations to buy in capabilities during a crisis and to explore alternative routes to goals (O'Toole and Meier 2010; McCrea 2020). Information management capability is also crucial (McManus et al. 2008; Sakurai and Chughtai 2020).

Finally, human factors, (comprising Barasa et al.'s 'human capital', 'leadership practices', 'organisational culture', and 'social networks and collaboration') were also found to be important (Moynihan 2012). A focus by leadership on staff autonomy and wellbeing contributed to organizational cultures in which people were motivated to continue working under seriously adverse conditions. A resilient organization has staff who 'consider challenges as learning opportunities' (Barasa, Mbau, and Gilson 2018) and has established trusting relationships within and between the stakeholder organizations (Dudau, Favotto, and Kominis 2018; Sloan and Oliver 2013)

Taken together, Duit's two-dimensions of resilience and Barasa's three broad categories of resilience drivers offer a helpful framework against which we can predict the resilience of SIBs. In so doing, this paper contributes to the empirical and theoretical literatures on both organizational resilience and collaboration in two ways.

First, there has been little empirical research on resilience in partnership organizations such as SIBs. This investigation is therefore a unique opportunity to explore the degree to which the drivers of resilience as articulated by Barasa and colleagues retain

their influence in the increasingly common public service partnership organization in which public, private and third-sector stakeholders are contractually linked in a long-term relationship (Carter et al. 2018; Dixon 2021).

Second, the bulk of public administration resilience scholarship – from the sub-fields of disaster and crisis management – focuses almost exclusively on precursor and recovery resilience. Considerably less attention has been paid to adaptive resilience and the gradual changes to organizations and administrations (what LaPorte calls 'slow-burning emergencies') that can undermine their resilience to sudden external forces (LaPorte 2007; Duit 2016). By situating our exploration of resilience in SIBs on the Ladder of Resilience, inclusive of transformational approaches, we are better able to understand whether any resilience observed in SIBs likely serves a return to the status quo post-pandemic or is the bellwether of new, better ways of public service delivery and financing. Said differently, we can describe how far up the Ladder SIBs may go.

Exploring expectations of SIB resilience: policy background

This study focuses on 31 SIBs commissioned under the Life Chances Fund (LCF). Launched by UK government in 2016 as an £80 million 'outcomes fund', the LCF is the most recent of several similar funds set up in the UK since 2012 to encourage SIB adoption. Almost all UK SIBs have been supported in whole or part by such funds. The LCF is administered by The National Lottery Community Fund (TNLCF) and evaluated by the Government Outcomes Lab (GO Lab) at the University of Oxford, Blavatnik School of Government on behalf of the Department for Digital, Culture, Media and Sport (DCMS).

SIBs operating under the LCF are co-commissioned by DCMS and one or more local commissioners. The rules of the Fund stipulate that for each project, local commissioners are the majority outcomes payer (the original expectation was that LCF would fund about 20% of outcomes payments). Between 2016 and 2019, thirty-one SIB projects were approved for funding. The LCF was expected to contribute a total of about £48 million if projected outcomes are achieved, funding on average about 32% of outcomes payments. Projects were scheduled to run for up to seven years in the policy areas of child and family welfare (10 projects), employment and training (8), health and well-being (5), homelessness (4), education and early years (3), and criminal justice (1). This analysis focuses on the period March to October 2020, the 'first wave' of Covid-19 in the UK. Nineteen projects had commenced service delivery by March 2020. A further ten were launched between April and October 2020. As of summer 2021, one project was still expected to launch and two had withdrawn from the LCF.

An important factor during the pandemic was the funding offer made by DCMS in March 2020. At that time, shortly before the national lockdown, the Cabinet Office published a Procurement Policy Note (PPN 02/20) which expressly referred to outcomes-based contracts. In order to keep such services running PPN 02/20 provided that 'if the contract involves payment by results then payment should be on the basis of previous invoices, such as the average monthly payment over the previous three months'.

The guidance, however, does not mention the role of investors which makes it arguably less applicable to SIBs. Accordingly, in April 2020 DCMS gave LCF SIBs three options. Projects could continue delivering services on an outcomes contract, switch to grant payments based on 'medium-case performance scenarios', or pause their services altogether, including delaying their launch. These choices were expected to hold until

Table 1. Expectations of resilience in SIBs.

	Expect because	Do not expect because
Functional resilience	Focus on outcomes leaves SIB delivery partners to adapt services to operational requirements (governance) Structure allows managers to divert and redeploy capital as needed to maintain or enhance services (governance + resources) Investors bear financial risk which protects delivery (resources) SIBs emphasize collaboration and long-term working building trust among stakeholders (human factors)	Crisis renders some outcomes unachievable and breaks the logic of continuing services (governance) Investors may not be willing to bear unforeseen risks Tensions can arise in hybrid organizations between organizations with different outlooks, aims and cultures (human factors)
Structural resilience	SIB providers and commissioners bear short-medium-term crisis because cash flow is assured by investors (governance + resources) Investors pay whether outcomes achieved or not (governance + resources) Longer duration of project development and delivery than typical public services enable relationship building with stakeholder organizations (human factors) Long-term engagement with clients ensures financial sustainability through achievement of outcomes (human factors + resources)	Investors rarely fund entire service costs without some interim payment (governance + resources) SIBs designed for recycling: the financial model requires some amount of early-term outcomes payment which can be reinvested (resources)

the end of September 2020 and to mirror projects' arrangements with local commissioners. Further consultations took place in September, when some projects were allowed to extend the grant payments for a defined time.

Research questions

Duit's Ladder of Resilience (2016) and the governance/resources/human factors framework of Barasa, Mbau, and Gilson (2018) offer a way of interpreting the resilience of SIBs during the Covid-19 crisis and addressing two research questions:

Research question 1 (RQ1) 'how was functional resilience displayed by LCF SIBs in the Covid crisis, and what drivers were identified?'

Research question 2 (RQ2) 'how was structural resilience displayed by LCF SIBs in the Covid crisis, and what drivers were identified?'

The following sections explore each RQ in more detail. These sections are complemented by Table 1 which outlines the ways in which SIBs are expected to display functional and structural resilience and ways in which that resilience may be undermined, and Table A1 (see Appendix/Supplementary) which describes how the variables were operationalized in this study.

Research question 1: expectations of functional resilience in SIBs

RQ1 explores the types of functional resilience displayed by the SIBs between March-October 2020. Functional resilience is here defined as the ability of a project to continue or to start providing services. Services adapted or introduced during the crisis are considered to be precursor resilience while recovery resilience involves embedding such adaptations in the post-crisis period.

By design, SIBs are expected to show a degree of functional resilience, facilitated by the governance, resources and human factors of the projects. Taking the contractual structure (governance) first, an outcome contract should facilitate precursor and recovery resilience. Being judged solely on outcomes, SIBs should be able to adapt their services to meet operational requirements. This can give SIB managers more autonomy than managers of comparable 'fee-for-service' contracts. Regarding resources, the same contractual flexibility applies to the ability to divert resources as required. (Nevertheless, this flexibility does not apply to the contracted outcomes which may become unachievable in a crisis and undermine the logic of the service.) Furthermore, investor and/or grant funding should allow service provision to continue even if outcomes are temporarily halted. Thus, governance and resource aspects tend to facilitate functional resilience.

In terms of human factors, SIB partnerships often emphasize their collaborative nature, and the importance of long-term trusting relationships within and between partner organizations and between case-workers and clients. Thus, we would expect aspects of human factors to promote resilience during the crisis both within front-line provider organizations and between stakeholder organizations. We also expect the relationships with central government to be broadly supportive, given DCMS's financial and reputational stake in the LCF. Nevertheless, stakeholder relationships in SIBs do not always prove easy (Dixon 2021; Dayson, Fraser, and Lowe 2020), and the tensions arising within hybrid organizations are well known (Skelcher and Rathgeb Smith 2015; Battilana and Lee 2014; Battilana et al. 2014). This study provides the opportunity to observe how the projects managed in practice.

Research question 2: expectations of structural resilience in SIBs

Based on the funding offer from DCMS, structural resilience is operationalized as a project's willingness to stay on an outcomes contract during summer 2020, rather than switch to a grant, pause services or delay launch. Remaining on an outcomes contract displays confidence on the part of the provider to be able to achieve outcomes during the crisis and on the part of the investor to support the project during a period of uncertainty. As outlined in Table 1, governance, resources and human factors are all expected to influence the decision whether to alter the funding mechanism.

Taking governance first, we distinguish three variables that might affect structural resilience (the ability to continue on an outcomes contract): (1) the number of organizational stakeholders contractually linked via the SIB, (2) the lead organization, and (3) the presence of a special purpose vehicle (SPV) as the main contract holder with the local commissioner. These variables are justified as follows.

(1) Multiple stakeholders increase the complexity of decision-making (Huxham and Vangen 2005). This does not lead to a clear expectation regarding the funding decision, however. More stakeholders could make a project more risk-averse and more likely to pause or switch to grants, or conversely could make it simpler to stay on the existing outcomes contract than obtain agreement for change.

(2) The 'lead organization' is the stakeholder that led the partnership through the multi-stage LCF application process and thereafter coordinated other stakeholders, acting as the primary point of contact with TNLCF. Such 'boundary-spanning' individuals contribute significantly to the effectiveness of collaborative networks (Dudau, Favotto, and Kominis 2018) and the different interests of lead organizations could influence the funding decision (Herrera 2017). Local commissioners were obliged to mirror the revised funding arrangements offered by DCMS, so switching to grant payments implied a commitment for the local commissioner to pay providers regardless of outcomes. We might therefore expect that commissioner-led SIBs would prefer to remain on outcome contracts, while investor- or provider-led projects might be expected to switch to grants to minimize their risks.

(3) We might also expect that having a SPV (all of which we understand were investor-controlled) would sway the preference towards grant-funding to reduce the risk to investors.

Resources were operationalized as follows: (1) whether the project had launched before lockdown in March 2020 and, if so, the duration of service delivery by that time, (2) the degree to which outcome payments were 'front-loaded' that is, the percentage of outcome funding expected to be received by March 2021, (3) the scale of the project (total outcomes funding committed), and (4) the proportion of funding expected from by LCF versus local commissioners. These aspects might be expected to affect structural resilience in the following ways. (1) Established projects have no set-up costs to fund and have started to receive outcomes payments from LCF, making them able to continue on outcomes contracts as planned. (2) Relatedly, longer-established projects would be receiving outcomes payments at an earlier date. (3) The overall scale of the project can reflect the amount of 'organizational slack' (unallocated resource) that allows an organization to ride out a crisis. (4) Where the LCF funded a larger proportion of the outcome payments, local commissioners may be more willing to switch to grant funding (as representing a relatively lower commitment on their part).

Considering how human factors could act as a driver for structural resilience, we expect that inter-organizational relationships, particularly those involving the project lead, will be most relevant to the funding decisions.

Methods and sources

As commissioned evaluators of the LCF, the GO Lab research team had routine contact with SIB project staff, DCMS civil servants, and TNLCF funding officers from 2017 through the time of writing. This gave the research team access to administrative decisions and up-to-date information and feedback from projects. As initially scoped with DCMS, the GO Lab evaluation sought to understand the unique features of public service delivery through SIBs by means of two strands of activity: monitoring information and surveys across all LCF projects and more detailed information from a sub-set of projects. At the outset of the pandemic, GO Lab's ongoing evaluation work pivoted at the request of DCMS to include project responses to the crisis. This additional evaluation forms the substance of this article.

An exploratory multiple case study approach (Baxter and Jack 2008) was used to analyse functional and structural resilience in all 31 LCF SIBs. As this study includes a small population of projects rather than a random or purposive sample, statistical

tests and regression-based analysis are not appropriate nor are the findings representative of the wider population of SIBs. Instead, we consulted, coded and analysed a variety of different data sources to build case knowledge. It should be noted that the level of detail available varies by project. The sources for this study were largely secondary documentary sources collected by TNLCF for the purpose of supporting projects during the crisis as detailed in Table A1 (see Appendix), supplemented by interviews with two TNLCF funding officers. Qualitative documentary sources were coded thematically by one researcher and validated by a second. Themes included *adaptations of core services to virtual and/or distanced delivery, additional crisis-support services, facilitators of adaptation, challenges to adaptation, benefits of adaptation*, and *inter- and intra-organizational collaboration*. NVivo was used to support coding. Publicly available information about the LCF projects is collated and archived on the INDIGO database (INDIGO 2021). Further details on variable operationalization and sources relating to RQ1, RQ2, and potential drivers of resilience are listed in Table A1 in the Appendix.

Findings and discussion

As the two research questions involve distinct variables and drivers, we report and discuss findings for each RQ in turn. For a summary of findings, see Table 2. For individual project details, see the Appendix.

Research question 1: how was functional resilience displayed by LCF SIBs in the Covid crisis, and what drivers were identified?

Nearly all already-launched LCF SIBs (18 out of 19 projects) continued to provide services, and a further ten launched as planned or after a few months' delay. Thus, functional resilience was displayed by almost all projects (28 out of 31) during summer 2020. We therefore consider functional resilience across all continuing projects in the light of the drivers of resilience (see Table 2). Of course, public services across the world have had to adapt to the pandemic and maintain essential services. Nevertheless, as suggested, outcomes-based contracts should offer providers more flexibility to adapt services and meet short-term needs while continuing to focus on long-term outcomes.

When the coronavirus crisis struck, projects were faced with two challenges: to keep core services running and to meet additional 'crisis-specific' needs. Accordingly, projects adapted service delivery by moving core services to virtual delivery and by adding new crisis-support interventions.

Core service delivery adaptations

Policy area and client cohort determined many adaptations. Projects delivering employment and training support to young people and vulnerable clients tended to move to largely virtual delivery, while most projects supporting children and families adopted a hybrid model, preserving face-to-face contact where required for safeguarding purposes. When restrictions eased, most services resumed some in-person contact alongside virtual engagement. At least one project, however, reduced its interaction with clients with the expectation of resuming more intensive services later.

Table 2. How the LCF SIBs displayed resilience during the coronavirus crisis.

	Resilience was possible because:	Resilience was reduced because:
RQ1: Functional resilience (service delivery continued during summer 2020)	Outcomes contracts allowed creative adaption of existing services to virtual delivery (governance) New services to meet clients' urgent needs were introduced to ensure their long-term engagement (governance + resources) Managers were able to divert and redeploy resources as required (governance + resources) Delivery was protected either through grants from DCMS or continued investor funding (resources) Front-line staff were supported through training and personal online contact (resources + human factors) Collaborations with local agencies were maintained (human factors)	Some outcomes became unachievable, breaking the logic of continuing services and/or requiring renegotiation of outcome targets and timescales (governance + human factors) Meeting urgent and unexpected needs could reduce future financial viability (resources) Referral numbers were volatile, making future outcome payments uncertain (resources) Client engagement was difficult to sustain through virtual delivery, caseworkers and managers experienced frustration and pressure (human factors)
RQ2: Structural resilience (the ability to stay on outcomes contracts in summer 2020)	For projects staying on outcomes contracts, cash flow was assured by investors as originally planned (governance + resources). Long-term delivery duration meant that projects could expect outcomes to be achieved after the crisis if client engagement could be sustained (resources + human factors)	For projects switching to grants, commissioners funded the service regardless of outcomes. For those which paused, most launched on grants (governance + resources). Projects had difficulty evidencing outcomes during the crisis (governance + resources) Some timescales and targets for outcomes were renegotiated (governance + resources)

Employment and training projects were severely impacted by the closure of further education colleges and training facilities as well as the reduction of employment opportunities. These projects started to offer remote counselling and online tutoring and training sessions. Looking forward, projects aimed to enhance young people's work readiness by providing online mock interviews and virtual work placements.

> [Project is] helping to prepare existing participants for work. In many cases helping them complete on-line applications for posts which will start as lockdown is lifted and helping them prepare for on-line interviews. - Project plan documentation.

Children and family services offered virtual family conferences and phone support. Where safeguarding was an issue, socially distanced meetings were arranged in parks and open spaces. Similarly, frontline staff working with vulnerable women conducted phone counselling sessions in front of women's houses. Being able to see each other through the window helped to maintain a sense of personal connection and allowed staff to check the women were safe. In another project, virtual sessions for parents and children were supplemented with physical resources:

> The books and toys which are an integral part of the programme are being delivered to families [. . .]. Microsoft Teams is being used to conduct video conferences [. . .] promoting positive parent-child interaction during these challenging circumstances. - Project plan documentation.

A key concern for projects was their ability to sustain user engagement. Accordingly, many services increased their frequency of phone or video contacts. Projects also tried to combat client isolation by arranging online peer support sessions, social media groups and newsletters as well as social activities such as virtual bingo and yoga sessions. While these activities worked well for clients who were already digitally connected, engagement remained challenging for individuals experiencing homelessness and mental health or substance misuse issues.

> . . . overall, preventing regression in wellbeing and attainment during the Covid period will be as big a success as enabling progression from pre-COVID period baselines. - Project plan documentation.

Added crisis support services

Many projects responded to additional service user needs by expanding services. This included supporting users' mental health, supplying basic needs, supporting users in the access and use of digital communication tools, offering welfare advice, and providing general guidance around Covid-19. A major concern was the deteriorating mental wellbeing of clients, with some projects reporting high levels of anxiety and depression. Projects added a variety of support procedures, including introducing mental wellness plans, regular phone contacts and an online work-for-wellness programme.

Two projects developed a user questionnaire to explore additional and changing client needs. Others offered support outside regular service hours and one set up a Covid-19 help centre which offered advice on the pandemic, domestic abuse, housing, and benefits. Many clients were struggling to meet their own and their families' basic needs, and several projects organized deliveries of food, household essentials and medication as well as arranging school meal vouchers and referrals to food banks. The digital divide was another concern. Several projects distributed IT devices to allow children and families to participate in their online programmes. Some provided homeless clients with financial support to enable internet or phone access and offered training in basic digital skills. Some of these activities required additional resources:

> [Project] launched a charitable appeal [. . .] to provide extra support to these families – from buying food and household essentials, to supplying IT and creative resources for home learning, to language support. - Project plan documentation.

Some benefits flowed from these adaptations. Virtual family conferences allowed more family members (such as a parent living or working elsewhere) to participate. For example:

> . . . moving to digital means has enabled for example that if the child [. . .] and the mother [are] available in the house, the father might be working on trucks but he will be able to stop, pull over, and join the call. - Interview with TNLCF funding officer.

Service users often responded well to virtual engagement:

> They might get better responses over technology because for young people, that [technology] is their thing. Especially when you are having difficult conversations, it is harder to have them in person. - Interview with TNLCF funding officer.

In some cases, virtual engagement reduced case-workers' travel time, allowing them to offer more support to clients:

> . . . the lack of travel time for the workers has meant that they have had extra capacity and they have been able to deliver extra support when it is needed . . . There was potential to continue providing those services beyond lockdown. - Interview with TNLCF funding officer.

Several projects reported that contacts and sessions increased substantially for this reason. For example:

> [Project] has also increased the intensity of its interactions with the young people it supports: around 90% are now being contacted every week, with an average of four interactions per child per week (it was previously one or two interactions per week). - Report from LCF Investor.

To understand what may have facilitated these types of functional resilience, we look at the three types of drivers: governance, resources, and human factors.

Governance drivers of functional resilience

Adaptations were facilitated by the fact that projects were governed by outcome contracts. This meant that interventions were not specified, allowing providers to introduce the creative solutions mentioned above without the need to renegotiate with other stakeholders. Only in the case of a 'licenced intervention' (where fidelity to the delivery process was required) did a project have to seek permission from the licensor to move services online.

Where outcome contracts are inflexible, however, is when the client cohort cannot achieve the specified outcomes. As outlined above, the pandemic made some outcomes unachievable. Where stakeholders wanted to modify outcome targets and timescales, they found that contract terms were often unhelpful. Clauses dealing with emergencies, force majeure clauses, were primarily designed to excuse non-performance or enable early contract termination, which was not what the contracting parties desired. Discussions, therefore, took place in which parties agreed pragmatic adjustments to activities and outcome targets to enable services to continue.

Resource drivers of functional resilience

Contractual flexibility also extended to financial considerations. Within the agreed budget, providers could buy in the resources they needed to support clients during the pandemic. The contracts also tended to be of longer duration than comparable services, giving projects leeway to meet the immediate needs of clients in order to achieve future outcomes. We do not have information about the funding provided by investors during this time, but the grant funding provided to more than half the projects (as discussed below) guaranteed the cash-flow that allowed services to continue and even to expand.

A concern for many projects, however, were uncertain and volatile client referral numbers which made budgeting difficult. Some projects had difficulty recruiting clients while others had a surge in referrals, including people who did not meet inclusion criteria but still required support or referral to other agencies. Some projects were unwilling to terminate support to vulnerable clients after the scheduled time-span and continued support to those clients.

Human factors drivers of functional resilience

Resilience also has a human side. We found that relationships, leadership, and support were important within SIB partnerships and their comprising organizations as well as between SIB partnerships and central LCF stakeholders.

Within provider organizations, managers invested in training to enable frontline staff to better respond to clients and to maintain their own wellbeing during the pandemic. Case workers received psychological training to respond effectively to domestic abuse situations and to the heightened mental and emotional issues experienced by children and families during lockdown. Staff also received practical support to move their services online and to assist clients with digital skills, as well as receiving information about Covid-19 regarding their personal health and wellbeing. Meetings and case conferences moved online, and communication with other local agencies was maintained.

The crisis took its toll on managers and staff, however. Some project leads reported feeling stressed and overwhelmed. Online engagement could be tiring and frustrating for caseworkers and there were concerns that virtual services were less effective. One project reported that its young clients were exhibiting high levels of anxiety and reverting to previous patterns of behaviour. Relationships between service providers and other agencies were sometimes difficult to establish or maintain, and shortages of foster carers and of landlords willing to offer long-term accommodation to vulnerable clients were reported.

Across the LCF, pre-existing stakeholder relationships and trust facilitated resilience. TNLCF funding officers not only ensured continued cash-flow (based on DCMS's funding offer) but also took a close interest in the way services were adapted and maintained. Support was also offered by Traverse, an independent consultancy commissioned by DCMS to provide mentoring and advice during the commissioning process. Local commissioners and service providers appear to have worked closely together to maintain services, with investors and intermediaries playing a less immediate role. However, some projects reported tensions between local commissioners and social investors over reprofiling outcomes targets.

Research question 2: how was structural resilience displayed by LCF SIBs in the Covid crisis, and what drivers were identified?

Structural resilience was operationalized as the decision to continue operating on outcome contracts throughout the crisis, rather than switch to grant payments or delay/cease providing services following DCMS' offer. By May 2020, the funding decisions of the 31 SIBs were known. Ten projects (32%) opted to stay on outcome contracts (8 projects) or to launch on that basis (2). The rest (68%) chose to switch to grant payments (10), launch on a grant basis (4), pause services (1) or delay their launch (6) (see Tables 4 and 5 in Appendix).

This analysis focuses on the funding decisions made during the 'first wave' of coronavirus in the UK, from March to October 2020. It should be noted, however, that these decisions were intended to be temporary. Most projects returned to outcome contracts by November 2020, though some later reverted to grants and two withdrew from the LCF altogether. We analysed funding decisions according to the drivers of resilience shown in Table 1: governance, resources, and human factors.

As with service adaptations, we anticipated interactions between policy areas of service provision and underlying drivers of resilience. We found some clustering of policy domains with respect to funding decisions. Of the projects opting to stay on outcome contracts, most focused on child and family welfare (7 projects), followed by homelessness (3). Such services are often statutory responsibilities of local authorities and, being a priority service, might be more capable of remaining on outcomes contracts (though not all projects offering children's services did so). All eight projects offering employment and training support switched to grants, likely reflecting the major reductions in employment and training opportunities during the pandemic. This group included five similar Mental Health and Employment Partnership (MHEP) projects of which four launched together in April 2020. Other projects in the 'grants' group focused on child and family welfare (1), health and wellbeing (2), education and early years (2), and homelessness (1). Among the 'paused or delayed' group, the policy areas were health and wellbeing (3), child and family welfare (2), education and early years (1) and criminal justice (1). The only project that paused its services offered early years education and was hit by the closure of schools and nurseries in spring 2020.

Governance drivers of structural resilience

Table 3 shows the governance structures of the 31 SIB projects, classified by funding decision. As Hugo Herrera observed, resilience has different meanings for stakeholders exposed to different types of risk (Herrera 2017). Accordingly, the identity of the lead organization was broadly associated with different funding decisions. Eight commissioner-led projects continued with outcome contracts while five switched to grant funding and five paused. Only two intermediary-led projects (and no provider-led projects) remained on outcome contracts. In contrast, all six provider-led projects and five out of seven intermediary-led projects switched to grants, paused services or delayed launching. This is broadly consistent with the expectation discussed above that commissioner-led projects will prefer to stay on outcomes contracts while other project leads will not. The presence of SPVs, however, appeared unrelated to funding decisions as more than half of the projects in each group had SPVs. The number of stakeholders also appeared unrelated to the funding decision.

Table 3. Governance structures for SIB projects by funding decision.

Funding decision in April-May 2020	Stay on outcome contract	Switch to grant	Pause services or delay launch	All projects
Number of projects:	10	14	7	31
Contract between commissioners and:				
Special purpose vehicle (SPV)	7	8	4	19
Service provider	3	6	3	12
Lead organization:				
Commissioner	8	5	5	18
Provider	0	4	2	6
Intermediary	2	5	0	7
Number of contracted stakeholder organizations:				
Average [range]	6 [4–12]	6 [4–13]	11 [4–32]	7 [4–32]

Table 4. Resources of SIB projects by funding decision (resource metrics are the values expected before the pandemic).

Funding decision in April-May 2020:	Stay on outcome contract	Switch to grant	Pause services or delay launch	All projects
Projects launched before 23 March 2020	8	10	1	19
Projects awaiting launch on 23 March 2020	2	4	6	12
Service duration by 23 March 2020 (launched projects only)				
Average (months) [range]	9.5 (1.5–21.0)	13.3 (6.5–23.5)	14.5	11.8 (1.5–23.5)
'Front-loading' of outcome payments (percentage expected by March 2021)				
Average (percent) [range]	16.8 [1.3–48.4]	28.2 [8.2–50.0]	9.0 [0–41.6]	20.2 [0–50.0]
Scale of project (total expected outcomes funding)				
Average (£million) [range]	6.2 [1.3–14.4]	4.2 [0.6–22.3]	6.7 [1.8–14.5]	5.4 [0.6–22.3]
Percentage of outcomes payments funded by LCF				
Average (percent) [range]	27.0 [11.4–44.5]	37.2 [26.1–45.3]	27.9 [19.0–42.8]	31.8 [11.4–45.3]

Resources drivers of structural resilience

Table 5. Situating SIBs on the ladder of resilience.

What ↓	When→	Precursor	Recovery	Adaptive
Function	Definition	**1. Maintains function during crisis**	**3. Recovers and functionally returns to a state of normalcy post-crisis**	**5. Learns and applies lessons to improve future functional resilience**
	In LCF SIBs	*Service delivery was maintained or expanded in 18 of 19 launched projects, and a further nine launched during 2020*	*Virtual and/or hybrid service delivery now a standard way of working for providers.*	Too soon to tell.
	Key drivers	*Resources and human factors*		
Structure	Definition	**2. Maintains structure and integrity during crisis**	**4. Recovers and structurally returns to a state of normalcy post-crisis**	**6. Learns and applies lessons to improve future structural resilience**
	In LCF SIBs	*10 of 31 projects stayed or launched on outcomes contracts.*	*Most LCF projects were operating on outcomes contracts by February 2021*	Too soon to tell.
	Key drivers	*Governance and resources*		

Results on resources are shown in Table 4. Whether the project had launched by March 2020 was related to funding decisions, in that all but one of the 'paused' projects had not launched by that date. Relatedly, the paused projects expected on average to receive a greater proportion of their outcome payments after FY 2020/21. Nevertheless, six projects launched as planned after lockdown, two on outcome contracts and four on grants. Projects that had already launched, however, were almost equally likely to remain on outcome contracts (8) or to switch to grants (10). For those established projects, there was no clear relationship between service duration and funding decision, showing that project duration per se does not confer structural resilience.

There was no clear difference in the average scale of the projects (estimated from the total maximum outcomes funding expected across their lifetime) with respect to the funding decision. The projects with the highest and lowest totals both switched to grant funding. There was some indication that, consistent with expectations, the proportion of LCF funding was on average higher in projects that switched to grant funding than those that remained on outcome contracts or paused. It should be noted, however, that the 'grants' group contained five similar MHEP projects (all receiving relatively high proportions of LCF funding) which dominate averages within this group.

Human Factors drivers of structural resilience

Here, we consider how human factors act as a driver for structural resilience as reflected by the funding decisions. Those decisions were taken at a high managerial level, remote from the frontline responses to the crisis that manifested as functional resilience. As discussed above, the strength and depth of inter-organizational relationships are likely to be most important for structural resilience. We do not, however, have the type of information required to investigate in detail the inter-organizational interactions that led to the funding decisions. Project duration and the identity of the project lead are imperfect proxies for this type of information, and are hard to separate from governance and resource considerations already described. There was no simple relationship between project duration and funding decision (apart from the launch delays discussed above) and, while commissioner-led projects more frequently remained on outcome contracts while intermediary- and provider-led projects more often switched to grants, such decisions can also be explained by resource considerations. It is therefore difficult to use human factors as a primary explanation for structural resilience. Human factors at a project level are, however, more clearly linked to functional resilience as described under RQ1.

Conclusions

We find evidence of both functional (RQ1) and structural (RQ2) resilience in LCF SIBs, though to differing extents.

In response to RQ1, we found that the majority of LCF SIBs displayed functional resilience. This was principally observed in projects already delivering services at the outset of the pandemic (18 of 19 already launched projects continued to provide services). In these projects, services were rapidly adapted to online and/or socially distanced delivery. In addition to adapting core service models, some projects also deployed additional support services to cater to emergent cohort needs. In the main, these service adaptations – evidence of functional resilience – were driven by resources and human factors: a combination of embedded relationships amongst project partners and flexible, re-deployable financing facilitated information-sharing and enabled collective decision-making without requiring cumbersome administrative effort. Relating this to the Ladder of Resilience (Table 5), we find that precursor and recovery forms of functional resilience are widely demonstrated: services were largely maintained, even increased, and virtual/hybrid delivery is now embedded amongst providers, many of whom discovered unexpected advantages of novel forms of delivery.

In response to RQ2, we found that some LCF SIBs also displayed structural resilience. 10 of 31 projects either continued or launched on an outcomes-basis. In these cases, structural resilience was commonly driven by governance and resources:

projects led by commissioners were more likely to stay on outcomes payments while projects with higher proportions of LCF funding were more likely to opt for grants-based payments. Placed on the Ladder of Resilience, we see some evidence of precursor and recovery forms of structural resilience: a sizable portion of LCF projects were able to maintain outcomes-based payments through the early stages of the pandemic and summer 2021, most of the LCF projects initially opting for grant-based payments or pausing have moved back onto an outcomes-contract.

Taken together, these findings suggest that SIBs display resilience as outlined on the first four rungs of the Ladder (see Table 5). As partnerships, SIBs demonstrate particular strengths around service continuity and adaptation driven by human factors, and highlight the importance of governance roles for determining structural changes during precursor and recovery phases of a crisis.

We note the central importance of flexible resources in enabling this functional and structural resilience within LCF SIBs. As outcomes-oriented public service partnerships, this flexibility was hard-wired into projects: the focus on outcomes payments rather than activity or input-based payments meant that projects were able to adapt at the front-line without having to renegotiate contract terms or switch accounting or monitoring methods in the short term. The decision from DCMS to offer temporary alternative payment terms further strengthened the focus on shoring up cash flow to LCF projects, reducing the immediate risk-burden on investors and providers. Nevertheless, a sizable proportion of projects remained on outcomes contracts throughout the crisis, demonstrating investor willingness to bear financial risk during that time.

While LCF SIBs have displayed resilience in the near term, it remains unclear how well they will fare through the next phases of the pandemic, including once the crisis has passed. Because the activities of today generate the payable outcomes of tomorrow, LCF projects will likely enter periods of renegotiation as the impacts of recent adaptations become known.

This study represents a unique empirical opportunity, benefitting from the research team's in-depth knowledge of the 'universe' of the 31 LCF SIBs pre-dating the pandemic, a much larger number of cases than is typical for crisis-recovery studies. SIBs in this group were not selected or 'cherry-picked' so there is no bias towards projects that coped better or worse with the pandemic. It draws on established theoretical models to explore the temporal sequence and drivers of organizational resilience.

The study, however, has limitations. While a helpful translation of resilience thinking from socio-ecological studies, the Ladder of Resilience – as indeed Duit points out – suffers three primary shortcomings which constrain its application in public administration research: '(1) deterministic systems models; (2) simplified accounts of politics and policy; and (3) a lack of systematic and generalizable empirical studies' (Boin and Lodge 2016, 295; Duit 2016, 364). To mitigate these shortcomings (which are shared by other models of resilience) we consider multiple aspects of resilience and we apply the concept of resilience drivers descriptively rather than deterministically. Equally, a potential weakness of the theoretical models is that organizational structure and function may not be independent, and the temporal sequence can be hard to distinguish clearly. We therefore carefully defined how the variables were operationalized and have noted where ambiguities remain.

Empirically, the study did not involve a random or purposive sample so we do not attempt to generalize or draw causal inferences. Much of the information was derived from secondary data collected for administrative purposes. This is a potential

limitation but also ensures that bias due to self-selection or self-promotion was minimized. The level of detail was not uniform across projects, but we obtained quantitative and qualitative information from every project. We also had limited knowledge about the roles and views of investors. This meant that some interesting questions regarding goal-alignment and inter-organizational relationships remain unanswered.

Future research will follow these projects to understand whether they continue to display recovery resilience and demonstrate adaption resilience in the longer term. This includes a survey launched in June 2021 of all the LCF projects. By such means, we will interrogate whether SIBs are resilient or merely delay administrative challenges due to their unique payment and partner structures. With this in mind, capturing changes to outcomes and targets, prices, partners, and service contracts is critical in understanding if projects are able to successfully shift to more relational and learning-oriented ways of working. Similarly, it may be during this period that inter-organizational relationships become most fraught. Detailed research on human factors can offer insight on how well hybrid partner structures are able to negotiate considerable hardships. Understanding SIB resilience in the longer-term provides an opportunity to interrogate longstanding but untested promises of SIB adaptiveness and is immensely salient in a world where public service delivery is increasingly the domain of networks and collaborations.

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